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REFLECTIONS
ON
GALL AND SPURZHEIM'S
SYSTEM
OF
PHYSIOGNOMY AND PHRENOLOGY.

ADDRESSED TO
THE COURT OF ASSISTANTS OF
THE ROYAL COLLEGE OF SURGEONS, IN LONDON,
IN JUNE, 1821.

By JOHN ABERNETHY, F.R.S., &c.

ADVERTISEMENT.

KNOWING that the following Address does not contain any thing *new*, the Author would not have published it, if he had not considered it to be a necessary addition to those views of the diversified effects produced by vital actions, which he has exhibited in the Physiological Lectures addressed to the College of Surgeons.

AN ADDRESS, &c.

GENTLEMEN,

THOSE sentiments and opinions which it is necessary man should entertain for his proper conduct in life, seem to be so readily acquired from the general contemplation of nature, and the operations of our own minds, that many have believed them to be innate or intuitive. They appear also to be more and more confirmed by the researches of science and the progressive accumulation of knowledge. Surely no man ever deduced opinions from a more accurate, minute, and extensive examination of all the vital phenomena, in every variety of living being, than Mr. Hunter; and none ever displayed more philosophical caution

in forming conclusions ; yet his notions of life were those which common sense dictates, and which were also entertained by the most intellectual characters in remote ages : this I have already endeavoured to show in lectures addressed to the members of the college.

Convinced of the truth and importance of Mr. Hunter's opinions relative to the Nature of Life, I am now desirous of enquiring, how any portion of physiological knowledge obtained since his time may have affected his sentiments in general, and particularly with respect to the functions of the most important organ in the animal economy of the human race. That the brain of man, and of animals similarly constituted, is a great emporium of nervous energy, that it sympathises with every part of the body, and bestows or excites animation and energy throughout the whole, has not, I believe, been disputed ; yet the experiments of Le Gallois, and the observations of Gall and Spurzheim, have rendered it highly probable that the brain of animals ought to be

regarded chiefly as the organization by which their sentient principle becomes possessed of a great variety of perceptions, faculties, and disposition to various kinds of action. To the consideration of this subject I am desirous of exciting the attention of members of the medical profession, because their opinions must have great influence with the public upon topics connected with their peculiar studies, and because there is no subject on which individual and general welfare so strongly demands that every one should think clearly and considerately.

When Dr. Spurzheim, impelled by laudable enthusiasm, and the belief that he could communicate new and important information relative to the nature of man, and the means of improving his mental faculties and moral character, came to this country, he met with but very few who would give the subject he proposed to them that patient attention and consideration which are necessary for its clear comprehension, or that continued examination which alone can en-

able any one to form his own opinion respecting the merits or truth of his system. General attention, therefore, to Gall and Spurzheim's opinions seemed to have subsided in this country, when a most able and eloquent advocate came forward in their behalf, asserting the superiority and excellence of their system of phrenology, and his own conviction of the correctness of their proposed mode of physiognomical enquiry. In his judgment, respecting the former subject, I readily concur, but am incompetent to give an opinion upon the latter; for when I first heard Dr. Spurzheim's lectures, I candidly told him, that though I admitted his opinions might be true, yet I would never inquire whether they were so or not; because I believed the proposed mode of judging of one another to be unjust, and likely to be frequently productive of erroneous and injurious conclusions.

But notwithstanding this resolution, I did not absolutely shut my eyes against those facts which obtruded themselves before my view; and I acknowledge that I have been

often struck with the coincidence between the character and talents of persons and the form of their heads, which was such as is said to be indicative of their peculiar dispositions and abilities. The intelligence and candour of Dr. Spurzheim, however, induced him to say to me, that it matters not how many coincidences we may observe; one contradictory fact must disprove them all, with respect to the asserted locality of any organ; and such contradictory facts have, as I believe, also presented themselves before me.

I am aware how exceedingly difficult it must be to decide on this point; for though organs may be large, yet they may be more extended and less prominent than usual; though small, they may be active from constitutional vivacity, education, and habitual employment; and though large and prominent, they may be inactive from disuse or control. Surely the foregoing considerations, together with the numerous and indisputable instances which we possess, proving that the character and conduct of

persons * depend very much upon education, habit, and association, ought to make us exceedingly cautious how we judge of others merely from the form of their heads.

I anticipate nothing but mischief from Gall and Spurzheim's Physiognomy or Craniology †, becoming generally known and accredited. Suppose a man to have large protuberances on that part of the head where they are said to indicate excess of cautiousness; suppose him apprized that

* In my opinion, Miss Edgeworth has done the public a most important service by showing, even to children (in the Parent's Assistant), that by perseverance difficulties may be surmounted, and abilities acquired, or talents improved; also how by degrees good habits are formed, and a good character established. She has done this in so inviting a manner, and displayed so clearly and strongly the excellence of virtue and good conduct, that I think it impossible for a child to read her book without resolving steadily to persevere in the path of active industry and moral rectitude, whatever temporary difficulties may oppose its progress.

† Though the former term cannot etymologically be objected to, yet the latter more clearly defines their object, and distinguishes it from what is usually meant by physiognomy.

such excess tends to produce melancholy musings and irrational apprehensions, which may hold the mind spell-bound and appalled, till suicide is welcomed as the only means of escape from seemingly insupportable gloom and horrors. Suppose him, with this information, seized with a fit of temporary despondency ; will he now strive to rouse his mind to active exertion, and employ it on other subjects ? — will he not rather think the effort useless and be inclined to submit to his doom, from the belief that it is the result of unalterable organization ? Or, suppose a man to have large knobs on his head, which are said to indicate him to be a knave and a thief, can he expect assistance or confidence from any one ? Must he not, as all of notoriously bad character do, consider himself to be an outcast from society, having no means of serving himself but those with which nature has endowed him, and which, in the instance and under the circumstances referred to, may indeed be those of fraud and cunning.

If a man, like Dr. Spurzheim, who had made the motives of human actions a particular study, possessing also great intellectual powers combined with benevolence and caution in decision, should, from the survey of another's head, suppose that he had discovered his character, he would next observe his conduct with particular attention, in order to determine how far his cranioscopical inferences were confirmed by facts. Thus would his speculations only lead to an enquiry, which of itself alone forms the fairest and surest criterion that we can possess of judging of one another. But if an unbenevolent and inconsiderate man, who had never studied human nature, were at once to decide from the form of the head, and suspect or believe all those who happen to be broad across the temples of being covetous or crafty, he would surely injuriously mistake the character of many persons.

It is said, that this system of physiognomy will assist us in the education of children. Yet their actions are sufficiently, and I think

more clearly, declaratory than the form of their heads, of their sentiments, dispositions, and talents. Those who have a taste for music or drawing, manifest their fondness for those arts by their earnest attention to the subjects of them, and their abilities by the imitations they attempt of whatever has particularly pleased them.

It is asserted, that this system of physiognomy may assist us in the cure of insanity. But how that dreadful malady is to be cured, except by the usual medical and moral management, I am not able to comprehend. The object of the former is to tranquillize or remove that state of nervous irritation or disease which may have led to the establishment of insane ideas ; whilst that of the latter is to weaken and annul these irrational ideas, by so occupying the mind as to prevent their recurrence. Nor, in my opinion, could the medical profession wish for a better illustration of what may be termed the moral treatment of insanity than that which Dr. Johnson has laid before the public in his *Rasselas*, shewing by what means

the prince and his sister effected the cure of the insane astronomer.

The views which Drs. Gall and Spurzheim have taken of the nature of the dispositions and faculties of man and animals, appear to me, however, both new and philosophical, and these admit of being surveyed without any reference to organization or its supposed situation.* It is thus only that I submit them to you as well deserving your examination ; for I think it will be acknowledged that they have drawn a correct portrait of human nature, whether they be right or wrong in their speculations concerning

* When the subject is thus examined, it may be questioned whether any peculiar merit is due to Gall and Spurzheim for the representation which they have given of it. As many learned men who have published on the same subject, have not represented it in the same manner ; and as the speculations and progressive steps by which Dr. Gall was led to see the subject in the manner he has portrayed must be allowed to be peculiar to himself ; I feel warranted in ascribing the phrenology, even when abstracted from the organology, to these ingenious and scientific men.

certain protuberances which they have depicted. Believing that some, pleased with the phrenology, may overrate their physiognomy or cranioscopy, whilst others, from perceiving the uncertainty and ill-consequences of the latter, may be inclined to undervalue the former, I am induced, for reasons already mentioned, to urge your attention to these subjects. From my deficiency in literary research, and my neglect of registering what I may have read, I am unable to trace the sources of my own opinions, yet, as I proceed, I shall candidly avow them, without presuming to suppose that others have not thought in the same or in a better manner, and to a greater extent.

First, then, I admit, nay, even admire, the simple proposition, that man and animals resemble one another, in each possessing, in various degrees, instinctive and urgent propensities to perform certain actions. These propensities, though they operate without the influence of reason, are, however, in man, regulated by that power. Yet, with respect to the results produced by

their operation, it may be affirmed that animals as far surpass mankind, as man by his rational faculties and sentiments becomes in other respects superior to them.

OF THE PROPENSITY FOR CONSTRUCTION.

How very curious is it, that at certain seasons of the year animals should be seized with a propensity to build nurseries for their young, and storehouses and habitations for themselves, without foreknowledge that they may be wanted for future inhabitants, or at future seasons. Some birds begin to build before they procreate; and the sterile labouring bees, in constructing a storehouse for their community, do not neglect to provide necessaries and accommodations for the young of the common-parent of the hive. How very curious also are the structures which many animals erect without previous plan or design, and in some instances without any communication with one another. How admirably suited, also, are these structures to exigencies unforeseen by the artificers. Some hornets build the exterior of their nests with agglutinated

leaves, and the interior cells with the same materials, reduced to the state of paste or mortar; whilst the bees which build in hollow trees, requiring no protecting walls, merely build a comb with plates of wax resembling tiles, which are prepared and formed between layers, constructed for this purpose on the surface of their bodies. This apparatus and its products have been exhibited by Mr. Hunter in his museum, and you know his very interesting paper on this subject, which is published in the *Philosophical Transactions*. The greater number of animals, however, have no necessity nor propensity to build; so that this very curious instinct is also a very partial one.

Gall and Spurzheim assert that this propensity is the result of a peculiar organization in a portion of the brain, the exuberance of which is rendered evident even by the exterior form of the head. They say that some individuals of the human race have a strong propensity to construct things, and an aptitude for such employment, whilst others have no disposition or talent of this

kind. They assert that, both in man and animals, those individuals who have this constructive propensity have also a corresponding form of head which is wanting in others who do not possess it. They make a similar assertion with respect to all the other instincts which we are to consider, but it will not be necessary for me to repeat it. Now here I may observe, upon the supposition of Gall and Spurzheim's views of these subjects being correct, that the occasional, perhaps annual recurrence of this propensity, renders it probable that it is not organization merely which creates it, but that it arises from temporary actions occurring in peculiarly organized parts ; and the rare recurrence of this instinct shows how long such actions may be suspended so as to render organization of no effect.

Admitting that man, like animals, possesses in various degrees a natural propensity and talent for construction, yet no blind impulse regulates his labours ; he constructs what his reason directs, or his fancy suggests ; he forms previous plans or designs, and

alters them, till the whole seems to accord with his intentions ; and yet none of his works is so unalterably perfect as are those produced by blind instinct, operating according to the ordinances of overruling intelligence.

OF PARENTAL AFFECTION AND ATTACHMENT.

No instinct is, in general, more strong than that which attaches the parent to its offspring, for it sometimes induces the former to perish in defence of the latter, which have no other protector. Yet this instinct is very variable, and sometimes even wanting in particular instances ; occasionally, animals neglect their young, and leave them to perish ; nay, sometimes they injure and destroy them. This instinct generally belongs to females, but the male also may possess it. All these facts are equally true with respect to the human race, in which this instinct evidently operates independently of reason ; for though rational considerations may dictate and enforce maternal care, they can never produce maternal affection.

OF IMITATION.

Though there is something in the constitution of animals which causes the peculiarities of their actions, yet it is manifest that many have a propensity to imitate those of others, and it is probable that this propensity, together with the acquired habit of doing what has been repeatedly done, is a great source of conduct among animals of a gregarious nature. As man is an associating animal, he participates largely in this propensity, and there are some persons who possess the disposition and talent of imitation in so high a degree, that they are led to hurt the feelings of others by offensive mimicry.

OF THE DISPOSITION TO COMBAT.

In most kinds of animals the activity of the vital powers incident to early life is exerted in running and striving in mock combats with one another; and thus do they acquire the art of self-defence, and of shunning danger. That some kinds of animals, and some individuals in particular, have a

strong propensity to combat, is evident; for they are known to fight when grievously mutilated, and even till they die. That man also possesses this kind of animal courage, this propensity to combat and contend, is well known to the English, for it forms a striking feature in their national character. The people actually seem fond of boxing, wrestling, and cudgel-playing, and become hardy and resolute by such practices.

OF THE PROPENSITY TO DESTROY.

That predacious animals have a strong propensity to destroy others is evident; for when not impelled by want, they injure and kill them. This is chiefly seen in animals of the cat kind, though the lion, the most powerful of the tribe, is rarely known to commit unnecessary slaughter; and therefore does the rational animal, man, admire the character of this noble brute. That some men are even pleased with cruel sports and sights, and feel no compunctious visitings of nature in acts which excite horror in others, must, I believe, on ex-

amination, be admitted. It seems, therefore, allowable to suppose that man participates with brutes in possessing, in a greater or less degree, a propensity to injure or destroy that which he dislikes, or which his judgment deems necessary to be destroyed. If a man had that kindness of disposition which would induce him, when he had caught an insect that had long vexed and annoyed him, to put it out of the window, saying, "Why should I harm thee? the world is wide enough both for thee and me," unbalanced by any opposite feeling, and uncontrolled by the power of reason, he would suffer his house to be overrun with vermin, and animals to multiply, to the detriment of the general good, and the ultimate injury of those whom his pity spared.

OF AFFECTION AND ATTACHMENT.

Some animals, on the contrary, have a kind or affectionate disposition, and also an attachment to others. That "honest creature, (for so we call him,) the dog, who never bites the hand that feeds him," ma-

nifests his joy at the approach of his master by antic gambols, and his affection and attachment by leaping up to him and licking his hands. The dog will also resolutely fight for his master, and those individuals who possess great hardihood and determination will die in his defence. We are fond of dogs, and attached to them, because they are so to us. Whoever attends to the affections of the mind, will readily perceive that there is nothing more infectious than feelings; if, therefore, we wish to receive kindness from others, we can only obtain it by showing kindness to them. In the fox, one of the dog tribe, we have an instance of an animal, with no other ties than those of nature, living a life of wedlock, unchangeably attached to a single female, to his home, and to his family. Gall and Spurzheim say, that man participates with animals in having, in different degrees, instinctive propensities to kindness and attachment, and also the corresponding organization by which they suppose such instincts to be produced.

OF THE PROPENSITY TO CONCEAL.

That some animals secrete themselves, and dissemble, or are crafty in order to obtain their prey, or secure themselves from injury, is well known; and Gall and Spurzheim assert, that man has the same propensity, in different degrees, which they call secretiveness. It is certain that many persons are naturally reserved and uncommunicative, and thereby apt to conceal what it is useful that others should be informed of; whilst, on the contrary, there are those who seem to tell all they know or think, even in opposition to the dictates of common prudence, and thus become, not only babblers, but mischief makers. The propensity to secrecy induces us not simply to conceal our opinions, but also to pretend to others, in order to prevent the real ones from being discovered; and this is generally called cunning.

OF THE PROPENSITY TO HOARD.

Some animals have a propensity to hoard and lay by things; they bury superfluous

food, and take it again when they want it ; but some hide things which can be of no use to them, and to which they do not return. Gall and Spurzheim assert, that man has the same propensity, which, in moderation, induces laudable frugality, but in excess, covetousness and theft.

OF CAUTIOUSNESS.

That some animals, and some individuals of the human race, are cautious and timid, whilst others are precipitate and fearless, is apparent to common observation. The cautious disposition in man produces a continual appeal to his reason ; and therefore it is that we are in the habit of using the terms *circumspect* and *considerate*, as indicative of this feeling.

OF DETERMINATION.

That some animals and men are particularly self-willed, or head-strong, (as the phrase is,) cannot be doubted ; which quality is not connected with any particular character, for those of mild tempers often possess it in a high degree. Gall and

Spurzheim call this quality determination, and represent it merely as giving force to volition, whatever its object may be. This propensity is the chief cause of refractory conduct in children ; and it is natural that they should wish to do what they please, for they have not the motives for restraining their actions which reason and experience suggest. The command of parents should, therefore, stand as the law of reason to the child, which should be taught the necessity, and acquire the habit, of ready obedience to its decrees. It is also important that the commands of parents should be just, and not unnecessarily and too frequently issued ; lest reason in the former instance, and the dislike of control in the latter, should induce children to rebel against them.

There are some who seem to wish it should be believed, that the instincts of animals, and the curious arts and expedients which they employ to obtain food, and avoid injury, are the effects of reason ; but they cannot maintain this opinion, except

by granting to the lowest kinds of animals a greater share of intelligence than they themselves possess, or can have any idea of. We may take some spider's eggs, and when hatched, select a young one who never has had any communication with his species, and we shall find, that in due season, without a plan or preparatory attempts, it will construct as curious a web as any of his ancestry; then secrete himself till an unwary fly becomes entangled, which he will suddenly seize and destroy. Gall and Spurzheim, however, represent these animal propensities as operating without reason, when excited by external circumstances. We have an opportunity of witnessing the truth of this representation of the subject where wild beasts are kept. Even the most ferocious and precipitate animals of the cat species do not seem to be insensible of kindness, or devoid of affection and attachment to those that feed them. We see the tygers pleased, and purring and rubbing their head and sides against the cautiously out-stretched hand of their keeper; but if food be presented to them, the scene

is changed in an instant ; we then see the symbol of fury, with outstretched claws, glaring eyes, growling with open mouth, ready to destroy that which it wishes to devour. We see them tear any thing presented to them, nay, even champing their food with a kind of rage, as if they were more gratified by its destruction, than by the satiation of hunger. Had they reason, they would be aware that this fury is both unnecessary and useless. We see a great variety of animal character, we see the same in man ; and that these animal propensities operate in him independently of reason, and often in opposition to its dictates, is well known, and so urgent also are their impulses, that some have believed them to be uncontrollable, and founded upon this belief the pernicious doctrine of necessity.

Secondly. I admire the very explicit manner in which Gall and Spurzheim have shown, that, though man resembles animals, in possessing, in various degrees, the foregoing propensities, and even most

of the inferior intellectual faculties, he yet differs from them in possessing others, and also superior rational faculties and sentiments, which dignify his nature, and exalt it above his present station. Gall and Spurzheim think that animals possess inferior intellectual faculties, which modify the information received by means of the senses, so as to produce particular kinds of knowledge and talents. Of these inferior intellectual faculties, there are two which seem exclusively to belong to man, those of calculation and language. There are some persons who have a power and facility of calculation, which others, of equal or perhaps superior intellectual ability, cannot by any effort acquire. Languages are learned by the ear, but it is not the acuteness of this organ which qualifies us to learn them; this ability is, according to Gall and Spurzheim, the result of a separate and appropriate organization. We do not learn to speak, as to write and draw, by willing the several motions necessary to the accomplishment of our designs; for, in general, we know not the motions necessary for the

enunciation of words. There is, therefore, a natural consentaneousness between the will and the powers which effect its purposes. *

By the tongue we reveal our knowledge, thoughts, and sentiments, and thus, in some degree, fix and multiply them. By the hand we render valuable information permanent, and raise a common capital of knowledge, from which all may draw an equal share of interest. There are some who represent the intellectual faculties of man to be little superior to those of brutes, and maintain that they become so chiefly in consequence of his possessing organs of speech, and that surprising instrument the hand. They, however, exhibit a very different view of human nature from that on which I am now commenting, which shows,

* This ready obedience of complicated structures to the mandates of the will, transmitted by actions through the nervous fibres, together with the sympathetic affections of remote parts, excited by similar actions, must, I think, on consideration, appear to every one a subject of great interest and curiosity.

on the contrary, that these organs are but the means by which the superior intellectual powers and sentiments belonging to our nature accomplish their designs.

Gall and Spurzheim assert, that some persons have both the disposition and talent of accurately noting and remembering the particulars of each object, event, or proposition, and are thus qualified to become, in an eminent degree, matter of fact men. We see, even in childhood, that some observe almost every thing, but with versatile and insufficient attention; whilst others, though less general, are more accurate in their remarks. Now, whether a ready and exact observation be a separate talent or not, it ought to be cultivated with the greatest assiduity, since by it alone do we acquire all the materials of our knowledge; and we cannot reason with propriety upon ill-defined premises. Numerous and unclassified facts are, however, like a great collection of numbers, which it would be scarcely possible to remember without some mnemonic aid. They must be subdivided,

and associated with one another, or with something else, in order to be remembered. Say that we even decimate a large collection of numbers, we can then get them by heart, as the phrase is, each ten in successive association with one another, and in numerical sequence with the rest, and thus are able to remember the whole collection. We find it often eligible to alter the arrangement of the facts from that in which they have come before us, and arbitrarily or rationally to connect them with other circumstances, in order to render their remembrance easy and permanent.

I see no objection to the classification of the superior intellectual faculties which Gall and Spurzheim have made, into comparison, analysis or causation, and combination; because this arrangement refers to all the elementary powers cognizable in the actions of the human mind: powers which seem exclusively to belong to man. I am even pleased with the station which the organs supposed to be productive of these powers are said to occupy; for we find

them arranged in a regular phalanx on a part of the head peculiar to man, the summit of the lofty forehead. As I have said in the lectures addressed to this College, if we find the head more produced in parts peculiar to man, it is reasonable to suppose that he will possess more of the intellectual character; and if in those parts common also to brutes, that he will possess more of those propensities in which he participates with the brute creation. We are all naturally physiognomists; and almost every observant person has remarked the amplitude of this part of the head to be indicative of intellectual power. Shakespeare denotes the eye as the herald of the mind, which so quickly proclaims its mandates that he compares it to the winged Mercury, new-lighted on a fair and ample hill, so lofty, that, Olympus like, it seemed to touch the heavens.

Though it is very difficult to define the rational processes, yet it is evident that we compare, assort, arrange, separate, and com-

bine facts for the convenience of memory, or for some supposed rational purpose. It is also apparent that they become associated in the adopted order, and further connected with thoughts and feelings; so that the whole chain appears in succession whenever we observe a single link. It is likewise well known, that it is difficult to break faulty associations which may have occurred or been formed through accident or design. In collecting facts, we observe a kind of gradation in them, which often suggests a plan of arrangement. Yet, in accumulating facts, we cannot avoid the exertion of a power of mind peculiar to man, and which is generally termed the power of drawing inferences from facts or propositions. It is by the exercise of this power that we form opinions of the causes, reasons, nature, and effects of what we observe. But having already spoken at large in the lectures addressed to this College, on the caution requisite in forming opinions, and on their importance, and influence on our conduct, I believe that I need not say more on this subject.

A kind and affectionate disposition belongs to animals, and the same feeling, blended with considerations peculiar to man, constitutes benevolence, which is the chief excellence and ornament of his nature. In the language of Shakespeare, it may be said to be "twice blest, for it blesseth him that gives, and him that takes." It produces the same sentiment in others, and thus becomes the bond of society; a source and spring of virtuous actions, and an obstacle to those of a contrary nature. No sentiment can produce more delight than the consideration of our having done good unto others; none is equally permanent; and the constant feeling of good will to all, "sheds a perpetual sunshine o'er the mind." Benevolence must be considered as a sentiment of the mind, as something intimately belonging to it, and operating without the excitement of external causes. Sterne, who has displayed great knowledge of the effects of feelings upon human conduct, shews this, as well as the gratification which results from the operation of benevolence, by saying: "I

declare, was I in a desert, I would find out wherewith in it to call forth my affections : if I could not do better, I would fasten them upon some sweet myrtle, or seek some melancholy cypress to connect myself to ; I would court their shade, and greet them kindly for their protection ; I would cut my name upon them, and swear they were the loveliest trees throughout the forest ; if their leaves withered, I would teach myself to mourn ; and when they rejoiced, I would rejoice with them."

That persons possess this sentiment in various degrees is manifest, even from childhood. Its excess renders us morbidly sensitive to the distresses of others, and its deficiency so indifferent that we seem to think only of ourselves. There are some who, possessing this sentiment, do not act in conformity to its dictates: they give pity, but no succour. The exhibition of their natural feelings, like the common courtesies of the world, thus deceive those who confide in them. Surely it must be the consideration of this circumstance, joined

with a detestation of deceit, and the consciousness that it is but a duty to do unto others as we would they should do unto us, which produces an anomaly of character both common and well known. Many persons of great benevolence and perfect candor, often suppress all exhibition of good feelings, and treat with harshness those whom they nevertheless effectually relieve and support. By these means putting a mask over the face of virtue, and making it appear disgusting.

Gall and Spurzheim think that there is an organization which occasions its possessor to feel and perform what is just and honourable to be done amongst mankind; and they call the sentiment conscientiousness. This commands us to do what is just, and to perform what we have promised; and of the imperative and controlling influence of this sentiment over human actions, when supported by adequate determination, we have abundant and glorious instances. Brutus condemning his son, and

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Regulus returning to Carthage, are convincing and sufficient examples.

Some, indeed, might question whether pride had not a great influence in producing such noble conduct. They knew that the eyes of the world were fixed upon them, and that it would be shameful to deviate from what justice and honour commanded. But we may observe, even in the dawn of life, and within the circle of a single family, that there are some little children upon whose promises we can depend, and who would not tell a falsehood to screen themselves from shame or punishment. That persons possess this sentiment in very unequal degrees, must, I fear, be admitted; but that none are destitute of it, may, I think, be inferred from all representing their own conduct, however culpable, both to others and to themselves, as conformable, in some respects at least, to the laws of moral rectitude.

Gall and Spurzheim believe that on the outside of the head they can discern the

throne of pride and district of vanity. These sentiments are of a similar nature, and can, I think, belong only to rational creatures, for they involve rational considerations. They consist in an exaltation of ourselves in our own opinion, above others, on account of some real or supposed superiority in mind, body, or estate. Pride is a sentiment of a more fixed and independent nature than vanity. The proud man seems indifferent about the good opinion of others, and satisfied with his own. But vanity seems to languish without the food of flattery; and the vain man often appears humble in order to obtain applause. These sentiments, in a limited degree, may be useful, as they prevent us from doing what might lower us in our own esteem or in that of others, and induce conduct which has a contrary tendency. I need not endeavour to shew the absolute absurdity of these sentiments, for on reflection it must be evident to every one; I will merely add, that no faulty sentiments or propensities can render their possessor, in general, more offensive and ridiculous. The

want of these sentiments, with due consideration of the rights and claims of others, according to Gall's and Spurzheim's views of these subjects, constitutes humility, than which no quality can render an individual more amiable and useful. The excitement which pride and vanity may produce to laudable actions is temporary and trivial in comparison with that caused by humility. The former is satisfied and apt to cease when a seeming triumph over others is achieved; whilst the latter induces us constantly to contend with the subjects on which we are occupied, and with ourselves. The proud and vain believe their achievements to result from appropriate talents; but the humble-minded are convinced of the limited nature of their own powers, and that all their attainments have been made by successive portions of labour and meditation. They also perceive how little are their possessions in comparison with their wants, and are thus continually excited to persevere in industry. Humility also is the source of gratitude. Justice may require us to pay the debt of gratitude, but

it is spontaneously and redundantly discharged by humility. In proportion as we are humble, so are we thankful for assistance afforded, information communicated, or good opinion manifested.

On the very summit of the head, above all other sentiments, instincts, and faculties, Gall and Spurzheim have pointed out a protuberance, greater or less in different individuals, which they believe to be the result of an organization exciting in us respect to distinguished and intellectual characters, even of our own kind, and reverence to the Supreme Intelligent Cause that has ordained and maintains the order of nature, and they have called the sentiment veneration. If this organization be excessive when combined with fear and credulity, they think that it produces absurd superstition; when with pride and unbenevolence, that it may render its possessors strict and devout in performing the ceremonial duties of religion, though they live in violation of its most essential mandates, without either being humble or charitable;

and when combined with arrogance and cruelty, that it may qualify a man to be a judge or executioner in the chambers and dungeons of the inquisition. That people possess this last-mentioned sentiment in very various degrees, cannot, I think, on consideration, be denied.

Adjoining to the organ of veneration, Gall and Spurzheim think that they have discovered organs of faith and hope, both of which they consider to proceed from the same sentiment. It is impossible to hope for what we do not believe can happen; and if we believe expected good may take place, we cannot but hope that it will do so. That some persons have a greater confidence than others in events which they cannot actually predict or influence, may be inferred from the conduct of mankind in general.

There are some persons who have a particular susceptibility of mind, which causes them to perceive so acutely and forcibly, that it leads to exaggeration. They cannot

speak of circumstances like men of sober sense, but always express themselves in hyperbole. The strong perception of what is great, good, and beautiful, makes them strive to excel, but it often is an ideal excellence which they aim at, and not such as is attainable by ordinary means or powers. This state of mind Gall and Spurzheim consider as essential to poetic talent, and they call it ideality. Yet this state of mind does not make the poet; for he must have knowledge, or materials, as well as imagination and abilities to design and construct those compounds of fancy and knowledge which equally delight and inform us. This sensibility of mind operates upon all our faculties and sentiments, and heightens their effect; so that it is productive of good or evil, according to the character and abilities of the party to whom it may belong.

The foregoing representation of human nature, when viewed in its proper light,

and with due attention, must, I think, please every one ; for it is not like others heretofore presented to us, which appear in comparison but as mere diagrams, the result of study and imagination ; whilst this seems like a portrait from life by masterly hands. It is not, indeed, exactly like any individual, but capable, by alterations, of being made to resemble every one ; so that by the help of a few touches we are able readily to shew “Virtue her own image, Vice her own deformity,” in all their diversities.

I had great gratification in being intimate with Dr. Spurzheim whilst he remained in London, and in a kind of badinage I proposed to him questions which he answered with facility, and in a manner that shewed a very perfect knowledge of human nature. For instance, I enquired whether he had discovered any organ of common sense ? and he replied in the negative. I then demanded in what that quality consisted ? and he answered, in the balance of power between other organs. This answer

shews why a quality so peculiarly useful is common to all, and rare in any : for there are but few who have not prejudices or partialities, hopes or fears, or predominant feelings, which prevent them from pursuing that middle and equal course of thought and conduct, which unbiassed consideration, or common sense, indicates and directs. I enquired of Dr. Spurzheim if there was any organ of self-control, or if not, whence that power originated ? He said, " It is the result of a predominating motive ; thus, justice may control avarice, and avarice sensuality." In short, I readily acknowledge my inability to offer any rational objection to Gall's and Spurzheim's system of phrenology, as affording a satisfactory explanation of the motives of human actions.

Their representation simplifies our notions of such motives, by lessening the number of reputed agents ; thus, the want of benevolence and virtuous dispositions, with excitement to anger, produces malevolence, and this, conjoined with conceal-

ment, malice. I need not recite a variety of instances, since they are sufficiently apparent. We perceive that mankind may be naturally benevolent, conscientious, and humble-minded, or the reverse; just as they are naturally timid or fearless, resolute or fickle, candid or reserved; we perceive that they may have natural talents, qualifying them to excel as mathematicians, calculators, linguists, draughtsmen, or musicians; and also that they may possess various degrees and kinds of intellectual power. Yet, whatever may be the natural character or abilities of the man, he neither deserves praise nor censure, for he is but what nature made him. We further perceive that real virtue consists in the efforts which we make to cultivate our talents, rational powers, and moral sentiments, and to educate and control the inferior propensities of our nature, so as to allow to each only its proper sphere and mode of action, thereby rendering our conduct conformable to the acknowledged laws of moral rectitude and religious obligation. And, if we were to examine our own conduct

and that of others by this test, we should probably discover but little, in the former, which we are warranted warmly to approve, or in the latter, strongly to condemn. Nature has not only given to man good and honourable sentiments, but also made it his highest gratification to employ and indulge them ; so that we rarely deny ourselves this supreme pleasure, except when prevented by selfish considerations.

Now, Gall and Spurzheim have represented the office of the superior intellectual faculties and sentiments as affording motives and possessing powers that can, and ought, to control and educate the inferior propensities. But there have been, and are some who seem to wish it believed that human actions are under the control of these inferior propensities ; allowing, indeed, that the fear of great personal evil may deter us from compliance with their urgent solicitations. They also represent the absence of guilt but as the result of the want of temptation. Yet, if we inquire why such degrading and disgusting views of human nature

are presented to us? Why opinions are inculcated which tend to weaken virtuous efforts by declaring their inefficacy? We find that the authors of them, from a review of their own conduct, and that of the baser part of mankind, are convinced that there is no virtue in them, and therefore infer that others must equally want it. Thus do they presumptuously "call virtue, hypocrite," and malevolently "pluck away the rose from the fair bosom of innocence, to place a blister there."

But, though the possession of original dispositions, faculties and sentiments, may create a tendency to certain actions, yet Gall and Spurzheim admit that it is education which produces knowledge and character: it is the disposition and ability to do what has been repeatedly done, and with progressive improvement, that gives us talents and habits of thinking, feeling, and acting, in a particular manner. It is repetition, or education, by which also motives are rendered so predominant that we feel the indispensable necessity of im-

plicit and energetic obedience to their commands, which is called enthusiasm, and which has given rise to glorious deeds, dignifying and exalting human nature far above animal existence. Religious sentiment, conscientious justice, patriotism, and even personal honour, have induced mankind to bear the greatest evils, without betraying any of the unworthy propensities of our nature.

Thus may even the inferior propensities acquire ascendancy and sway: thus may avarice induce a man to starve in the midst of plenty, in order to increase his useless store; and caution to abstain from gratification, from ideal danger; as though a person would not drink from the cup which others quaffed with pleasure and with benefit, lest something noxious to himself alone might be infused in the liquor. Some would meet death to gratify malevolence, ambition, or sensuality; but is not this the result of repetition, and the education of bad propensities? Surely we

must admit that *Nemo repente fuit turpissimus.*

Even facts and opinions may by repetition acquire a preponderance and value that did not originally belong to them. Questionable assertions may by degrees obtain the authority and power of established facts; and opinions, which at first were doubtful, may in like manner acquire a delusive influence over the mind. In insanity, a man may believe a part of his body to be wasted, nor is the evidence of his sight and touch, which we cannot suppose to be defective, sufficient to convince him of his error.

On the other hand, we may suppress and bring into disuse, propensities and sentiments which may have been naturally strong, till they become inert or inoperative: no better proof of this can be required, or need be adduced, than the complete change of character and conduct which is caused by the imitation of others, and by habits

acquired from those with whom we associate; a change so generally known and recognised, that its effects have become proverbial. "Don't tell me," says Sancho Pança, "by whom you were bred, but with whom you are fed."

Yet that there are natural differences in the character and talents of persons is evident: in infancy, we may observe that some are delighted with receiving and bestowing kindness; whilst others accept and return caresses with apathy. At a very early period we perceive a child to be resolute, or undecided, fearful, or incautious; candid, or reserved; liberal, or selfish. We also discern various kinds of talents and intellectual powers before it can be supposed that they have been produced by education. These natural differences of character and talent also manifest themselves under the most inauspicious circumstances: a man may be educated as a robber, and pursue his profession with so much zeal and energy that he may acquire its highest honours; he may be the captain of banditti: yet, if

nature has given him just and honourable feelings, he will sometimes violate the regulations of the gang, and commit acts of clemency and propriety which many of his comrades may censure, and call pusillanimous, yet none can wholly disapprove. Do we not also know that great talents have induced self-education, and that plough-boys have become eminent as philosophers and poets?

The representation which Gall and Spurzheim have given, places the sentiments and dispositions in their real situation, in the head; yet, as the brain affects the heart and other parts of the body, mankind have been induced in all ages to believe them situated in the more evidently affected organs; still, I could not but feel surprize that so late and so eminent an anatomist and physiologist as Bichât should represent the heart to be the seat of feeling, and the head of thought. Anger and fright may greatly augment or diminish the actions of the heart; yet the intelligence producing either of these emotions was

conveyed by the eye or ear to the brain ; first affecting the mind, and secondarily the heart. Good sentiments and dispositions, with serenity of mind, seem to make “ the bosom’s lord sit lightly on its throne,” and produce sensations which may be said “ *circa precordia ludere*.” Whilst, on the other hand, “ some sorrow rooted in the memory, some irrasibly written troubles of the brain,” make us feel “ as if the full bosom wanted to be cleansed of that perilous stuff that weighs upon the heart.” But it is surely as simple, and more correct to express ourselves as Gall and Spurzheim would have us, by saying that a person has benevolent or just sentiments, as that he has a good or an upright heart.

I have contended, in the lectures on physiology delivered before this College, that there are but two opinions which can possibly be entertained concerning the cause of the vital phænomena. We must either believe that they are the result of properties belonging to the atoms of matter of which

living bodies are composed, or of some subtle, invisible, and highly mobile substance or substances, inhering in, and connected with the evident materials of living beings. The latter opinion seems to me the most probable, and is, I believe, that which Mr. Hunter entertained respecting this subject. I have further contended, that though such vital principle or principles may reasonably be considered adequate to produce the phænomena of life in general*, viz., the prevention of putrefaction, the regulation of temperature, the formation of new chemical combinations, and various kinds of vital actions in the substances in which such principle or principles may inhere; thus, in the nervous system, transmitting actions to and from the brain, exciting sensation and communicating volition, and also actions productive of sympathy between remote parts of the body; yet no such principle can be supposed to produce sensation, for it is impossible to suppose that sensation

* Vide first two Introductory Lectures; and First Lecture of the year 1817.

can result from any motion or arrangement of insensible atoms.

I cannot understand what present physiologists mean, when they speak of circumstances in the animal economy of man being the result of his possessing larger organs for the development of nervous energy. Do they mean to insinuate that the nervous energy is different from vital energy in general? Or, that the organization of the brain and nerves is necessary for the preparation of vital energy? Both propositions are unreasonable, and the latter contradicted by our knowing that the lower kinds of living beings, which have neither brain nor nerves, possess vitality in the most energetic and permanent degree. Neither do I understand what they mean by attributing sensation to those parts where it is supposed to take place.

Do they really put faith in this delusion? The senses of sight, hearing, and smelling, have been termed, both by physiologists and phrenologists, internal senses, because

we do not attribute the sensation to the organs which are supposed to perceive; but surely we do not attribute it to any thing internal. If I am in the country, I see the distant hills, the nearer meadows, and the contiguous trees. I may hear the tolling of a remote parish bell, the lowing of the herds in the adjacent fields, and the warbling of the bird perched on the spray above my head. I may smell the sweet odour of the new mown hay in the adjoining fields, and the fragrance of the rose which I hold in my hand. Yet, in every instance, I attribute the sensation to the object which produces it, whether remote or near. So likewise in touch and taste I believe the body exciting these sensations to be where it really is; yet it must be admitted that perception is in every instance in the brain alone.*

The researches of science seem to have confirmed the conjectures of Hartley relative to the functions of the nervous system, and shown that there is a subtile substance

* See Introductory Lectures.

which he called æther, occasioning vibrations in the nervous fibrils, and thus exciting sensation, and communicating volition. These vibrations may recur as miniature vibrations in the brain, and reproduce sensations, and also imagination and thought. They may recur in the same order in which they have formerly taken place, or promiscuously, so as to produce perceptions which could never have been excited by objects in nature. If a person who has been "long in populous cities pent," goes a day's journey in the country, when he closes his eyes at night, he is pleased with the fanciful views of rural scenery which present themselves before him. Or, when the nervous system is disordered, we may be annoyed or appalled by the appearance of loathsome and hideous phantoms. In the common state of sleep it is manifest that the actions of life in the nerves, as well as in the muscles, generally are in a state of repose; so that they must be cerebral actions only which then create appearances, revive remembrances, and excite the mind to proceed with its own imaginations, and to feel and

think as in matters of fact : thus producing the incidents, and the whole drama of a dream. Nay, even while we are awake, actions of nerves unexcited by external causes may take place, and produce the appearance of persons and things, “ in form as palpable ” as realities.*

However, I readily concur in the proposition, that the brain of animals ought to be regarded as the organization by which their percipient principle becomes variously affected. First, because in the senses of sight, hearing, and smelling, I see distinct organs for the production of each sensation. Secondly, because the brain is larger and more complicated in proportion as the variety of affections of the percipient principle is increased. Thirdly, because diseases and injuries disturb or annul particular faculties and affections, without influencing others ; and, Fourthly, because it seems to me more reasonable to suppose that whatever is perceptive may be variously affected by means

* Ferriar on Apparitions.

of vital actions transmitted through a diversity of organization, than to suppose that such variety depends upon original differences in the nature of the percipient principle.

If, from considering the variety of our senses, and the total want of correspondence to the causes which must undoubtedly produce them, I mean the impulses of masses or atoms of surrounding substances exciting actions in our nervous fibrils, and, also, from the consciousness we possess of the unity of that which perceives, attends, reasons, decides, and wills, I am compelled to admit, as I have formerly argued in the lectures given in this College, that all variety of sensation results from the nature and attributes of something most wonderfully and inexplicably perceptive. How much more strongly am I compelled to believe that all those curious propensities, faculties, and sentiments, of which I have this day spoken, are attributes of the same substance. Indeed, to me it seems impossible that any rational being should suppose reason and

the nobler sentiments of our nature to arise from organization, or mere vital actions.

Whilst, then, I most readily concede to what is demanded in this system of organology, that the variety of effects produced may be the result of modifications of vital actions transmitted through diversities of structure, I most strongly protest against the opinion, that the organs themselves are perceptive ; or, indeed, against any opinion which impugns the belief of the unity of that which is perceptive, rational, and intelligent. Many of our actions are the result of complicated thoughts and feelings, each seeming to have yielded a portion of its peculiar interests, so as to produce a modified result. But how, may I ask, has this compromise been made ? A gentleman once humorously answered this question by saying, that it was done by committees of the several organs, and a board of control. But if an intelligent, discretionary, and controlling power be granted, I feel no disposition to demand any more.

The perceptive and intellectual phænomena cannot be rationally accounted for upon the supposition that the brain is an assemblage of organs, each possessing its own perceptiveness, intelligence, and will. There must be a common centre, as I may express it, to which all the vital actions tend, and from which all attention, ratiocination, decision, and volition proceed. Our attention may be so inactive or absent, so occupied by our own imaginations and thoughts, or abstracted, that we are scarcely conscious there is any thing surrounding us. Though we possess extensive perceptions by means of vital actions, yet we attend to but one subject at a time. We can direct our attention to any of our various sensations and feelings, to the operation of any of our faculties and sentiments; and, therefore, if Gall's and Spurzheim's opinions of the structure of the brain be true, that which is attentive must have communication with all parts of this organ. Nor can we do less than admit that what is attentive to all our sensations and faculties

must of itself be perceptive and intelligent. Reason and thought are inferences from information obtained by means of the vital actions, and cannot, therefore, be considered as the immediate effect of such actions. If, then, we remember our own thoughts, it must be in consequence of their recurrence to that which thinks. It is difficult to remember them unless we connect them with objects of sense, with something renewable by the recurrence of vital actions. Brilliant imaginations, judicious inferences, new and seemingly correct views of subjects, may be conceived in thought, and yet lost from not thus registering and fixing them. Now, as we reason and think on all the subjects of our knowledge, it is evident that whatever performs these acts must have communication with all parts of the brain.

The eye cannot judge of sensations produced by the ear, nor the ear of those of smell, taste, and touch, yet we decide on all our sensations, faculties, and sentiments;

consequently, whatever exercises this power must be acted upon by all parts of the brain.

The vital actions in the brain recur spontaneously, and promiscuously in sleep, as has been said, so as to create images, and excite imaginations, feelings, and thoughts. They can also be renewed by volition. We may endeavour to retrace the objects we have seen, till their spectra arise to our view ; or meditate on music we have heard, till the sounds seem to vibrate on the ear. When we see only indistinct forms and shades, we can convert them into finished pictures. Thus do we seem to recognise the features of our approaching friends, when their distance renders it impossible that we should distinguish them ; and to form as exact a resemblance of objects in the fire and clouds, as could be depicted by great labour and talent. Thus can we review all the subjects of our knowledge. We can arbitrarily call to mind the transactions of a journey undertaken many years ago, or con over the arguments of a discourse

which we may have lately heard. It must, therefore, be admitted, that the will operates upon all parts of the brain.

By repeatedly calling up these vital actions we render them prompt and habitual, and thus keep alive in our memories whatever we may deem worthy of remembrance. Yet, when we cannot recall them we are, nevertheless, confident that we have possessed the knowledge which we seek. We try to discover it by some circumstance with which it was connected, and if we find but the associating link, we are instantly assured of our perfect memory of a long chain of incidents. In what, may I ask, exists this assurance of forgotten events, or of perfect memory, when we discover but a single link in a long chain of circumstances? Surely we must answer, in that which has perceived and thought.

Of the unity of that which perceives, attends, thinks, decides, and wills, nature has given us a consciousness which no argument can annul, and which enquiry only

strengthens. I wish to avoid metaphysical discussions in this place, but it seemed necessary to shew that the consideration of the phænomena of mind, as well as that of the phænomena of life, equally enforces the opinion of their distinct and independent nature; thus confirming the notions that it is natural man should entertain relative to his own being, and which are necessary to his proper conduct in life. Uneducated reason, and the utmost scientific research, equally induce us to believe, that we are composed of an assemblage of organs formed of common inert matter, such as may be seen after death; a principle of life and action; and a sentient and rational faculty; all intimately connected, yet each distinct from the other.

The impossibility of our conceiving how any thing intelligent can exist, and become connected with, so as to affect or be affected by the organization of living beings, has led to unanswerable enquiries; which, however, cannot reasonably be made, except in consequence of supposing that what is

perceptive resembles the subjects of its perception, of which alone we can form any ideas. But it is not irrational to conclude, that things totally different in properties may be equally different in nature; and thus has it been inferred, that the mind does not resemble the subjects of its perceptions, but is, in its nature, neither mutable nor liable to decay, like the common forms of matter by which we are surrounded, and of which our bodies are composed.

No one seems better to have understood the faculties and sentiments of the human mind, or to have exerted them to better effect than Socrates. As he was a sculptor in the early part of his life, he was in the habit of saying, "How strange is it that we should take so much pains to fashion an insensible stone into the likeness of ourselves: and so little to prevent ourselves from resembling an insensible stone?" He was constantly exhorting others to try to improve their talents and moral character, as he himself had done with so much ad-

vantage and comfort to his own mind. But what was the cause of this continual effort in behalf of others? or whence arose that elevation of sentiment and perfect self-command which this philosopher possessed? Surely from the belief that his present state of existence was but preparatory to one exalted and eternal. After he had drank the poison, one of his friends, anxious about his funeral, enquired of him what were his wishes respecting a subject, which, to any real philosopher, must appear altogether unimportant. "Bury me," said Socrates, "where you please, provided you can catch me; for it seems that I, Socrates, who now reason with you, cannot convince you that when I quit this lifeless body, I shall be no longer present."

THE END.

The following List contains the
names of the persons who have
been elected to the office of
Magistrate for the year 1889.
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